

# Impact of access to global and domestic donor pool for patients in India – perspective of a patient registry

27

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## Background

- For over 10 years, DKMS Registry has been acting as a patient registry in India:
    - Providing access to the worldwide unrelated donor pool via the "Hap-E Search" application
    - Supporting cooperative transplant centers with the selection of unrelated donors and procurement of stem cell products
  - At the same time DKMS started a donor center in India to recruit domestic donors and expand the donor pool
- **Objective:** To understand the relevance of domestic and cross-border unrelated stem cell donor search and product procurement for patients using the example of India

### DKMS Group and DKMS Registry

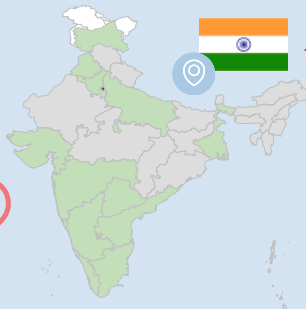
- DKMS Group is a non-profit organization, offering various services through its departments and affiliate organizations to support unrelated hematopoietic stem cell transplantation
- DKMS Registry operates as an international registry and works in close cooperation with transplant centers (TCs), and other international registries to support patients in need of unrelated stem cell products

## DKMS Registry – patient registry activity



## Search and request support, India: Geographical coverage

- 92 transplant centers (TCs) in India use DKMS Registry services to find unrelated donors as of September 2024

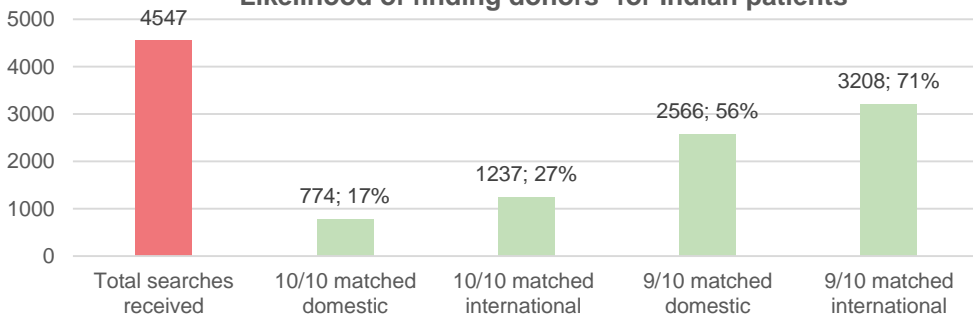


## Methods

- We retrospectively analyzed search and workup requests received from cooperative transplant centers between January 2021 and December 2023
- Data from adult and pediatric patient populations were included and requests for domestic (DKMS-BMST and MDRI) and international donors (DKMS Chile, Germany, Poland, Africa, and United Kingdom) accessible in Hap-E Search were assessed
- Regarding the interpretation of the absolute matching probabilities it has to be considered that this study is restricted to donors in Hap-E Search

## Results

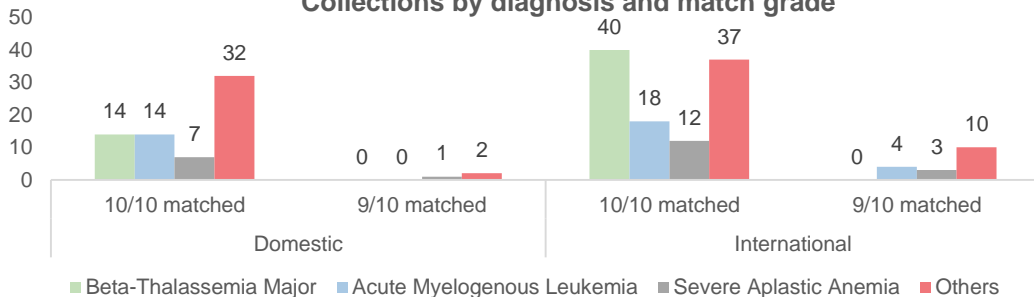
### Likelihood of finding donors\* for Indian patients



\* donors with > 80% matching probability in Hap-E Search.

- During the analyzed timeframe, we received a total of 4,547 searches from cooperative TCs in India: a potential 10/10 matched donor was found for 774 searches (17%) among the domestic pool.
- When expanded to international donors, this rate increased to 27%, and an extension to 9/10 matches increased the rate further to 56% for domestic and 71% for international DKMS donors.

### Collections by diagnosis and match grade



- Stem cell collections were successfully completed from 70 domestic and 124 international donors. Among the domestic (international) collections 96% (90%) were from 10/10 matched donors. 64% of patients received cross-border transplantation.

- Most common blood diseases for which collections were performed included beta-thalassemia major (54), acute myelogenous leukemia (36), and severe aplastic anemia (23). International donors provided stem cells in 74%, 61% and 65% of collections for these diseases, respectively. Furthermore, a 9/10 or 8/10 mismatched donor provided stem cells in case of 11% of acute myelogenous leukemia cases and 17% of severe aplastic anemia cases.

## Conclusion

Access to the worldwide donor pool is an essential first step to improve chances for patients in need of unrelated hematopoietic stem cell transplantation.

Domestic donors are key to successful searches, due to population specific haplotype frequencies. Furthermore, there are logistic advantages to procuring stem cell products domestically.

However, in countries where national donors are underrepresented and have limited availability, access to international donors is highly significant.

With the example of India our data underscores the relevance of international cooperation for donor searches and stem cell procurement to meet patients' needs.

### References

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